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Consulting Actuaries

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Trends in Health Claims for Fully-Insured HMOs 2002-2006

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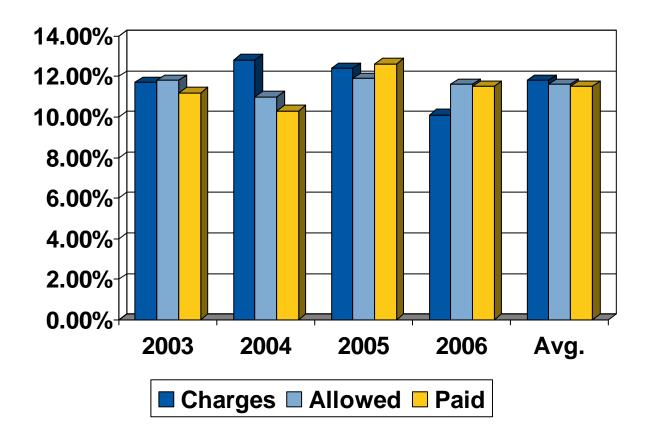
Trends in health claims for fully-insured HMOs in Massachusetts, 2002-2006 Background

Examination of claim payment trends underlying rising health premium increases

- Concentrates on claims payments which account for 87-89% of each premium dollar
- Includes the 10 major HMOs in the Commonwealth
 - Aetna Health, Inc.
 - Blue Cross Blue Shield of Massachusetts HMO Blue, Inc.
 - CIGNA Healthcare of Massachusetts. Inc.
 - ConnectiCare of Massachusetts, Inc.
 - Fallon Community Health Plan, Inc.
 - Harvard Pilgrim Health Care, Inc.
 - Health New England, Inc.
 - Neighborhood Health Plan, Inc.
 - Tufts Associated Health Maintenance Organization, Inc. (d/b/a/ Tufts Health Plan)
 - United HealthCare of New England, Inc.
- Represents roughly 2 million covered commercial insured members
 - 120 million (2 million x 5 years x 12 mos) member months between 2002 and 2006
 - Does not include Medicare, Medicaid, self-insured employer groups
 - Relative risk of the population remained stable over the study period
- Represents 276.6 million claim records; \$25.8 billion in paid claims
- Concentrates on changes in claims payments per member per month (PMPM) by type of service (e.g., inpatient stay or office visit), and by utilization and cost per service trends

Medical claim trends per member per month in Massachusetts

Over the study period, charges, allowed claims and paid claims increased at roughly the same rate

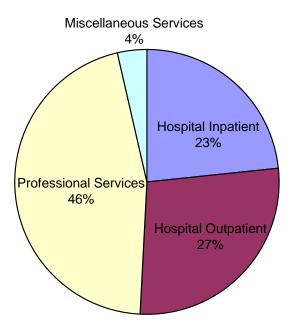




Medical Claims in Massachusetts 2002

\$154 PMPM and hospital outpatient services equal 27% of total

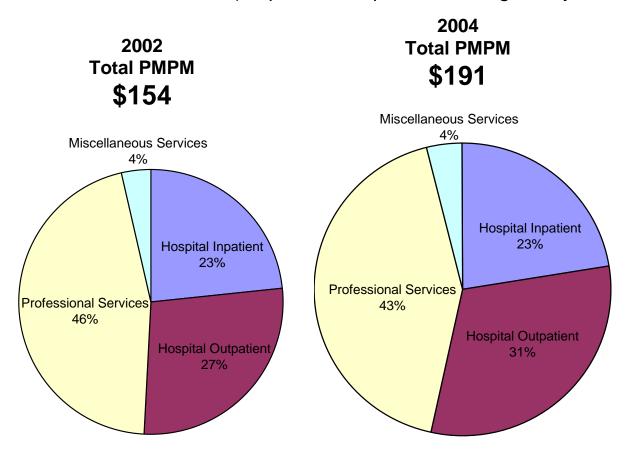
2002 Total PMPM \$154



* PMPM = Per Member Per Month

Medical Claims in Massachusetts 2002 to 2004

PMPM increased to \$191 (24% in two years), and hospital outpatient services consume 31% of the total (outpatient hospital PMPMs grew by 42% over two years)

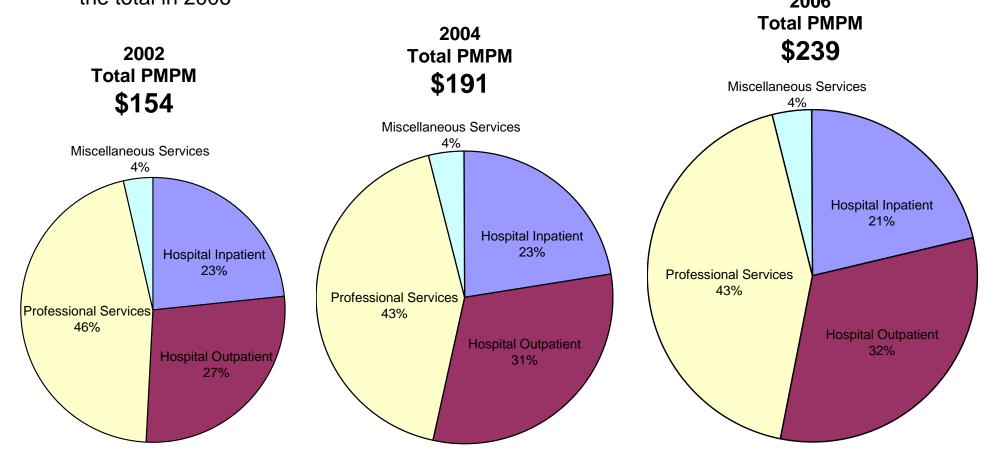


^{*} PMPM = Per Member Per Month



Medical Claims in Massachusetts 2002 to 2004 to 2006

PMPMs grew by 25% between 2004 and 2006, and outpatient hospital makes up 32% of the total in 2006

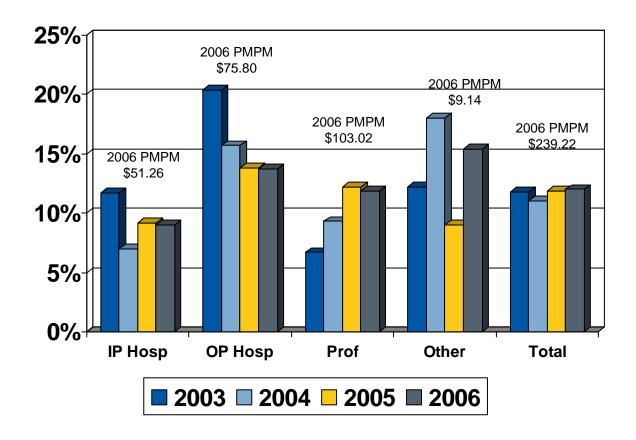


^{*} PMPM = Per Member Per Month

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PMPM trends by type of service

Outpatient hospital trends averaged 15.9% over the period compared to 11.6% for all services





Forces driving PMPM trends -- inpatient hospital

PMPMs increased <u>primarily due to increased unit costs</u>

Inpatient hospital – 9.2% average annual PMPM trend, 2002-2006

- The majority of the increase in the PMPMs for inpatient care is coming from <u>cost per service</u>, not utilization
- Admissions declines by 0.7% per year and average length of stay increased by 1.9% per year
- Significant increases in Cesarean sections, neonatal admissions and obesity surgery

Overall Inpatient

Average utilization decreased 0.7% per year
 Average payment per inpatient stay increased by 9.9% per year
 Average PMPM payments increased by 9.2% per year

Medical/Surgical Inpatient

Average utilization decreased 0.2% per year
 Average payment per inpatient stay increased by 10.3% per year
 Average PMPM payments increased by 10.1% per year

Mental Health Inpatient

Average utilization increased 4.5% per year
 Average payment per inpatient stay increased by 2.3% per year
 Average PMPM payments increased by 6.9% per year



Forces driving PMPM trends – outpatient hospital

PMPMs increased <u>primarily due to increased utilization</u>

Outpatient hospital – 15.9% average annual PMPM trend, 2002-2006

- PMPM increases highest for outpatient hospital lab/pathology and radiology
 - The majority of the increase in the PMPMs for lab/pathology and radiology appears to be coming from <u>utilization</u>, not cost per service

Laboratory/Pathology and Radiology

Average utilization increased 17.7% per year
 Average payment per visit increased by 1.0% per year
 Average PMPM payments increased by 18.8% per year

Other Outpatient Hospital

Average utilization increased 15.8% per year
 Average payment per visit decreased by 1.5% per year
 Average PMPM payments increased by 14.1% per year



Forces driving PMPM trends – professional

PMPMs increased due to increased utilization and unit costs

Professional health care – 10.0% average annual PMPM trend, 2002-2006

Trends in physician PMPMs were relatively consistent across types of service

Overall Physician

Average utilization increased 5.7% per year
 Average payment per visit increased by 4.1% per year (est. 2% for intensity)
 Average PMPM payments increased by 10.0% per year

Preventive Primary Care

Average utilization increased 10.4% per year
 Average payment per visit increased by 0.3% per year
 Average PMPM payments increased by 10.7% per year

Outpatient Surgery

Average utilization increased 8.1% per year
 Average payment per visit increased by 2.3% per year
 Average PMPM payments increased by 10.5% per year

Mental Health

Average utilization increased 11.4% per year
 Average payment per visit decreased by 0.5% per year
 Average PMPM payments increased by 10.9% per year



Forces driving PMPM trends – prescription drugs

Prescription drug PMPM trends reflect shift to generic drugs

Prescription drugs – 10.4% average annual PMPM trend, 2002-2006

- Strong shift to generic drugs
 - 50% of scripts issued in 2002 were generic; 66% of scripts in 2006
 - 5.5% annual decline in use of brand; 10.3% annual increase in use of generics
- Cost per script increased by 7.6% for brand, and by 20.8% for generics

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Appendix – Detailed Report Tables

Full report available at http://www.mass.gov/Eoca/docs/doi/Consumer/MAHMOTrendReport.pdf

		2002		2006		PMPM Trends					
			llowed PMPM		Illowed PMPM	'03/'02	'04/'03	'05/'04	'06/'05	Average	
Hospital Service	es Provided on an Inpatient Basis										
	Medical/Surgical	\$	29.79	\$	43.74	13.0%	7.3%	10.4%	9.6%	10.1%	
	Maternity	Ψ	4.54	٠	5.54	7.2%	6.2%	3.7%	3.4%	5.1%	
	SNF		0.60		0.50	-11.3%	-4.8%	-3.3%	1.2%	-4.7%	
	Mental Health Substance Abuse		0.84 0.26		1.10 0.38	6.9% 0.3%	8.1% 3.2%	8.5% -14.4%	4.0% 65.7%	6.9% 10.1%	
Total Hospital I		\$	36.04	\$		11.7%	7.0%	9.2%	9.0%	9.2%	
•	es Provided on an Outpatient Basis	·		·							
	Lab/Dethalass, Fasility		5.10		40.40	24.0%	25.9%	8.7%	20.70/	19.6%	
	Lab/Pathology - Facility Radiology - Facility		10.21		10.46 20.06	16.1%	23.1%	17.2%	20.7% 17.3%	18.4%	
	Total Lab/Pathology and Radiology	\$	15.31	\$	30.52	18.7%	24.1%	14.2%	18.5%	18.8%	
	Home Care PT/OT/ST - Facility	\$	1.20	\$	2.59	14.0%	23.1%	24.6%	23.0%	21.1%	
	Emergency Room - Facility		6.07		10.80	23.0%	12.2%	15.2%	12.0%	15.5%	
	Surgery - Facility		14.14		22.90	21.9%	7.1%	14.7%	8.2%	12.8%	
	Maternity - Facility		0.42		0.71	10.8%	12.5%	-0.6%	37.8%	14.3%	
	Mental Health - Facility		0.55		0.89 0.14	10.5% 5.8%	11.0% -1.2%	8.7% -21.8%	21.3% -3.0%	12.8%	
	Substance Abuse - Facility Clinic - Facility		0.18 1.03		1.91	13.1%	16.4%	13.7%	23.6%	-5.7% 16.6%	
	Other - Facility		3.15		5.35	26.0%	20.0%	5.7%	6.3%	14.1%	
	Other Outpatient Hospital	\$	26.74	\$	45.28	21.4%	11.0%	13.5%	10.8%	14.1%	
Total Hospital C	Outpatient	\$	42.05	\$	75.80	20.4%	15.7%	13.8%	13.7%	15.9%	
Professional He	ealth Care Services										
	Total Lab/Pathology	\$	5.18	\$	7.78	10.7%	10.4%	13.1%	8.6%	10.7%	
	Total Radiology	\$	5.53		8.78	13.9%	13.2%	11.7%	10.2%	12.2%	
	Total Lab/Pathology and Radiology	\$	10.72		16.55	12.3%	11.9%	12.3%	9.4%	11.5%	
	Hospital Visits	\$	1.74	\$	2.64	9.7%	9.9%	13.6%	10.6%	10.9%	
	Inpatient - Surgery		2.30		2.96	4.7%	2.0%	10.1%	9.3%	6.5%	
	Outpatient - Surgery		7.36		10.98	9.7%	8.0%	10.8%	13.7%	10.5%	
	Other - Surgery		0.19		0.24	-0.4%	8.0%	-4.7%	21.5%	5.6%	
	Anesthesia Office Visits - Primary		3.82 9.00		5.46 12.88	-6.6% 9.7%	10.0% 5.3%	19.5% 11.5%	16.3% 11.0%	9.3% 9.4%	
	Office Visits - Timary Office Visits - Specialist		4.03		5.74	8.5%	5.0%	10.0%	13.8%	9.3%	
	Preventive Visits - Primary		4.91		7.37	6.0%	12.9%	12.1%	12.0%	10.7%	
	Preventive Visits - Specialist		0.69		0.45	-7.2%	-9.5%	-17.5%	-4.9%	-9.9%	
	Emergency Room Visit		1.94		3.06	7.8%	8.5%	15.6%	16.6%	12.1%	
	Consultation		3.43		5.23	6.5%	9.9%	14.5%	13.8%	11.1%	
	Cardiovascular		2.49		3.38	8.7%	10.0%	5.2%	8.0%	8.0%	
	Immunizations		0.44		0.89	16.7%	2.1%	38.2%	24.3%	19.6%	
	Maternity		3.77		4.84	-0.7%	9.1%	7.2%	10.6%	6.5%	
	Allergy		0.55		0.83	9.5%	11.9%	7.4%	13.5%	10.5%	
	Dialysis		0.17		0.10	-4.0%	-27.6%	-7.8%	-7.5%	-12.2%	
	Chiropractic		0.80		1.72	13.1%	31.7%	29.6%	11.8%	21.2%	
	Mental Health		3.14		4.73 1.98	3.7%	11.3%	18.3%	10.6%	10.9%	
	PT/OT/ST Dental		1.09 0.56		0.93	13.5% 6.3%	25.8% 14.8%	14.8% 23.5%	11.0% 9.6%	16.1% 13.4%	
	Hearing Exams, Hearing Aids, & Vision		1.51		2.80	7.8%	18.6%	22.7%	18.4%	16.7%	
	Other Medicine		1.82		2.56	4.8%	4.4%	3.9%	24.0%	9.0%	
	Other Professional		3.92		4.69	-2.4%	8.1%	7.1%	6.0%	4.6%	
	Other Professional Services	\$	59.66	\$	86.47	5.7%	8.8%	12.1%	12.4%	9.7%	
Total Profession	nal Services	\$	70.38	\$	103.02	6.7%	9.3%	12.2%	11.9%	10.0%	
Miscellaneous	Services										
	Ambulance	\$	1.46	\$	2.25	17.0%	10.0%	9.6%	9.3%	11.4%	
	Durable Medical Equipment		0.85	•	1.54	15.8%	25.1%	12.3%	11.0%	16.0%	
	Prosthetics		0.43		0.58	4.9%	12.4%	12.5%	3.6%	8.3%	
	Major Medical (Supplies)		0.26		0.76	30.1%	27.0%	43.2%	24.5%	31.0%	
	Other Drugs ("J" HCPCS)		2.49		4.00	7.5%	20.3%	2.3%	21.5%	12.6%	
Total Miscelland	eous Services	\$	5.49		9.14	12.2%	18.0%	9.0%	15.4%	13.6%	
Total		\$	153.95	\$	239.23	11.8%	11.0%	11.9%	12.0%	11.6%	

Utilization Trends

		2002	2006	Utilization per 1,000 Members Trends					
		Allowed Util/1000	Allowed Util/1000	'03/'02	'04/'03	'05/'04	'06/'05	Average	
Hospital Service	es Provided on an Inpatient Basis								
	Medical/Surgical	50.0	49.6	0.9%	-0.9%	1.0%	-1.8%	-0.2%	
	Maternity	13.1	12.7	1.0%	0.2%	-2.7%	-1.9%	-0.8%	
	SNF	2.6	1.8	-29.2%	-1.1%	3.0%	-6.7%	-9.4%	
	Mental Health	2.5	2.7	7.1%	0.6%	4.0%	-2.4%	2.3%	
	Substance Abuse	2.0	1.7	-4.2%	0.2%	-51.7%	77.3%	-4.8%	
Total Hospital In	patient	70.3	68.4	-0.1%	-0.6%	-1.0%	-0.9%	-0.7%	
Hospital Service	es Provided on an Outpatient Basis								
	Lab/Pathology - Facility	2,510.4	4,059.4	11.5%	17.1%	3.9%	19.2%	12.8%	
	Radiology - Facility	1,162.7	2,979.4	9.2%	31.2%	11.0%	61.3%	26.5%	
	Total Lab/Pathology and Radiology	3,673.1	7,038.8	10.8%	21.5%	6.3%	34.0%	17.7%	
	Home Care PT/OT/ST - Facility	154.9	217.9	6.6%	11.6%	9.0%	8.4%	8.9%	
	Emergency Room - Facility	193.8	210.7	2.1%	-1.7%	6.2%	2.0%	2.1%	
	Surgery - Facility	223.3	252.5	9.4%	-2.3%	9.5%	-3.4%	3.1%	
	Maternity - Facility	11.4	15.3	3.9%	4.5%	-5.6%	31.1%	7.7%	
	Mental Health - Facility	80.6	68.4	5.1%	-7.7%	-24.0%	15.1%	-4.0%	
	Substance Abuse - Facility	24.9	13.4	14.1%	0.0%	0.0%	0.0%	-14.3%	
	Clinic - Facility Other - Facility	109.3 491.2	182.4 1,357.5	7.1% 37.0%	6.9% 35.6%	16.4% 8.4%	25.3% 37.3%	13.7% 28.9%	
	•								
	Other Outpatient Hospital	1,289.4	2,318.1	18.1%	16.1%	7.1%	22.4%	15.8%	
Professional He	alth Care Services								
	Total Lab/Pathology	3,434.7	3,898.7	8.0%	0.6%	2.7%	1.7%	3.2%	
	Total Radiology	888.4	1,344.9	7.7%	12.1%	14.1%	9.9%	10.9%	
	Total Lab/Pathology and Radiology	4,323.1	5,243.6	7.9%	2.9%	5.3%	3.7%	4.9%	
	Hospital Visits	266.4	257.9	2.5%	-1.2%	-0.6%	-3.8%	-0.8%	
	Inpatient - Surgery	45.8	42.2	-3.3%	-2.7%	-0.3%	-1.9%	-2.1%	
	Outpatient - Surgery	677.6	923.9	13.1%	8.3%	8.1%	2.9%	8.1%	
	Other - Surgery	71.8	85.7	2.8%	-7.4%	19.6%	4.8%	4.5%	
	Anesthesia	698.3	780.1	-4.5%	3.1%	16.0%	-2.3%	2.8%	
	Office Visits - Primary	1,771.7	1,840.4	1.7%	-1.8%	2.4%	1.5%	1.0%	
	Office Visits - Specialist	788.6	813.4	2.5%	0.2%	-0.9%	1.3%	0.8%	
	Preventive Visits - Primary	551.6	818.7	5.6%	16.1%	13.5%	6.6%	10.4%	
	Preventive Visits - Specialist	142.3	87.5	-1.6%	-14.8%	-16.2%	-12.5%	-11.4%	
	Emergency Room Visit Consultation	282.4	302.2	3.6%	-2.0%	0.9%	4.5%	1.7%	
	0 " 1	196.7	273.7 518.6	5.4%	12.3%	10.9% 8.5%	6.0%	8.6% 10.3%	
	Immunizations	350.6 476.0	518.6 543.6	13.2% 9.9%	14.2% -7.2%	11.3%	5.5% 0.6%	3.4%	
	Maternity	244.9	311.7	-0.2%	11.8%	4.0%	9.6%	6.2%	
	Allergy	640.2	861.7	11.6%	9.0%	4.1%	6.2%	7.7%	
	Dialysis	22.5	8.3	-6.6%	-35.7%	-21.0%	-21.9%	-22.0%	
	Chiropractic	534.4	801.1	11.1%	16.1%	10.1%	5.5%	10.7%	
	Mental Health	414.8	638.4	2.6%	14.6%	22.2%	7.1%	11.4%	
	PT/OT/ST	254.1	995.0	37.8%	103.5%	22.4%	14.1%	40.7%	
	Dental	81.6	87.9	-2.4%	6.6%	8.7%	-4.6%	1.9%	
	Hearing Exams, Hearing Aids, & Vision	274.7	404.1	8.0%	9.1%	10.7%	12.8%	10.1%	
	Other Medicine	411.2	318.2	-16.6%	21.1%	-1.1%	-22.5%	-6.2%	
	Other Professional	1,043.2	1,237.8	-7.1%	4.1%	40.1%	-12.4%	4.4%	
	Other Professional Services	10,241.2	12,952.0	3.7%	8.5%	10.7%	1.5%	6.0%	
Miscellaneous S	Services								
	Ambulance	97.2	106.7	6.9%	1.9%	3.8%	-2.9%	2.4%	
	Durable Medical Equipment	558.1	666.2	15.1%	50.1%	3.2%	-33.0%	4.5%	
	Prosthetics	39.1	40.7	25.8%	-0.7%	9.7%	-24.2%	1.0%	
	Major Medical (Supplies)	1,193.1	1,642.5	16.5%	-0.1%	22.0%	-3.0%	8.3%	
	Other Drugs ("J" HCPCS)	1,030.7	3,635.4	50.7%	8.6%	36.3%	58.0%	37.0%	

		2002 Average		2006 Average		Average Cost/Service Trends					
			Average ost/Service	Average Cost/Service		'03/'02	'04/'03	'05/'04	'06/'05	Average	
Hospital Serv	vices Provided on an Inpatient Basis										
	Medical/Surgical	\$	7,151.46	\$	10,591.19	12.0%	8.3%	9.3%	11.7%	10.3%	
	Maternity		4,151.68		5,239.95	6.1%	5.9%	6.5%	5.5%	6.0%	
	SNF		2,746.12		3,367.86	25.2%	-3.8%	-6.2%	8.5%	5.2%	
	Mental Health Substance Abuse		4,113.60 1,523.78		4,908.28 2,721.16	-0.2% 4.7%	7.5% 3.0%	4.3% 77.1%	6.7% -6.5%	4.5% 15.6%	
Total Hospita	al Inpatient	\$	6,156.18	\$	8,994.78	11.8%	7.7%	10.3%	10.0%	9.9%	
Hospital Serv	vices Provided on an Outpatient Basis										
	Lab/Pathology - Facility		24.40		30.92	11.2%	7.6%	4.6%	1.3%	6.1%	
	Radiology - Facility		105.38		80.80	6.3%	-6.2%	5.6%	-27.2%	-6.4%	
	Total Lab/Pathology and Radiology	\$	50.03	\$	52.03	7.2%	2.1%	7.4%	-11.6%	1.0%	
	Home Care PT/OT/ST - Facility	\$	93.21	\$	142.60	6.9%	10.3%	14.3%	13.4%	11.2%	
	Emergency Room - Facility		376.12		615.31	20.5%	14.1%	8.4%	9.8%	13.1%	
	Surgery - Facility		759.69 437.18		1,088.26 555.97	11.4% 6.7%	9.6% 7.7%	4.7% 5.3%	12.0% 5.1%	9.4% 6.2%	
	Maternity - Facility Mental Health - Facility		81.62		155.61	5.2%	20.3%	43.0%	5.1%	17.5%	
	Substance Abuse - Facility		84.70		124.52	-7.3%	0.0%	0.0%	0.0%	0.0%	
	Clinic - Facility		113.05		125.36	5.7%	8.9%	-2.4%	-1.3%	2.6%	
	Other - Facility		77.02		47.31	-8.0%	-11.5%	-2.5%	-22.6%	-11.5%	
	Other Outpatient Hospital	\$	248.82	\$	234.41	2.8%	-4.5%	6.0%	-9.6%	-1.5%	
Professional	Health Care Services										
	Total Lab/Pathology	\$	18.10	\$	23.93	2.5%	9.7%	10.1%	6.8%	7.2%	
	Total Radiology	\$	74.75	\$	78.31	5.8%	1.0%	-2.2%	0.2%	1.2%	
	Total Lab/Pathology and Radiology	\$	29.74	\$	37.88	4.1%	8.7%	6.7%	5.5%	6.2%	
	Hospital Visits	\$	78.59	\$	122.98	7.0%	11.2%	14.4%	15.0%	11.8%	
	Inpatient - Surgery		602.06		841.46	8.3%	4.9%	10.4%	11.5%	8.7%	
	Outpatient - Surgery		130.35 31.73		142.63 33.11	-3.1% -3.1%	-0.2% 16.6%	2.5% -20.4%	10.4% 15.9%	2.3% 1.1%	
	Other - Surgery Anesthesia		65.66		83.92	-3.1%	6.7%	3.0%	19.0%	6.3%	
	Office Visits - Primary		60.98		83.95	7.9%	7.3%	8.8%	9.3%	8.3%	
	Office Visits - Specialist		61.29		84.70	5.8%	4.7%	11.0%	12.3%	8.4%	
	Preventive Visits - Primary		106.78		108.08	0.3%	-2.7%	-1.2%	5.0%	0.3%	
	Preventive Visits - Specialist		58.06		62.13	-5.7%	6.1%	-1.6%	8.7%	1.7%	
	Emergency Room Visit		82.40		121.49	4.1%	10.7%	14.6%	11.6%	10.2%	
	Consultation		209.36		229.42	1.0%	-2.1%	3.2%	7.4%	2.3%	
	Cardiovascular		85.07		78.12	-4.0%	-3.7%	-3.1%	2.4%	-2.1%	
	Immunizations		11.00		19.69	6.1%	10.0%	24.2%	23.5%	15.7%	
	Maternity		184.54 10.40		186.23 11.53	-0.6% -1.9%	-2.4% 2.6%	3.1% 3.2%	0.9%	0.2% 2.6%	
	Allergy Dialysis		92.39		147.83	2.9%	12.5%	3.2% 16.7%	6.8% 18.5%	12.5%	
	Chiropractic		17.94		25.82	1.7%	13.4%	17.7%	6.0%	9.5%	
	Mental Health		90.71		88.98	1.2%	-2.9%	-3.2%	3.2%	-0.5%	
	PT/OT/ST		51.34		23.85	-17.6%	-38.2%	-6.2%	-2.7%	-17.4%	
	Dental		82.97		127.09	8.9%	7.7%	13.6%	14.9%	11.2%	
	Hearing Exams, Hearing Aids, & Vision		65.96		83.26	-0.2%	8.7%	10.8%	5.0%	6.0%	
	Other Medicine Other Professional		53.04 45.06		96.66 45.51	25.7% 5.1%	-13.8% 3.8%	5.0% -23.6%	60.1% 21.1%	16.2% 0.2%	
	Other Professional Services	\$	69.91	\$	80.12	2.0%	0.3%	1.3%	10.7%	3.5%	
Miscellaneou		Ψ	30.01	Ψ	33.12	2.070	3.570	1.070	. 5.1 70	0.070	
mioochanooc		\$	190.16	œ	252.00	0.49/	9 00/	E 60/	12 50/	0 00/	
	Ambulance	Φ	180.16	Φ	252.88	9.4%	8.0%	5.6%	12.5%	8.8%	
	Durable Medical Equipment		10 25						6E 00/	10 00/	
	Durable Medical Equipment Prosthetics		18.35 130.36		27.79 172 45	0.7% -16.6%	-16.6% 13.2%	8.9% 2.5%	65.8% 36.7%	10.9% 7.2%	
	Durable Medical Equipment Prosthetics Major Medical (Supplies)		18.35 130.36 2.60		27.79 172.45 5.55	0.7% -16.6% 11.7%	-16.6% 13.2% 27.2%	8.9% 2.5% 17.3%	65.8% 36.7% 28.4%	10.9% 7.2% 20.9%	